

ABSTRACT OF THE INVENTION

The invention provides a method and device for light generation wherein an embodiment of the device comprises a lower electrode, a conducting substrate formed on the lower electrode, and a triangle mesa structure having an optical cavity formed on the substrate. The triangle mesa structure (which can also be truncated) further comprises an active layer, a lower conducting mirror and an upper conducting mirror for vertical confinement of light in the optical cavity, a contact layer formed on the upper mirror, a metallic contact formed on the contact layer. An electrical current is applied to the device according to the invention through the metallic contact linked to the contact layer, and subsequently to the lower electrode through the lower mirror and the conducting substrate. The applied current results in light generation in the active layer with vertical light output through the metallic contact. A corresponding light generation method is also disclosed herein.